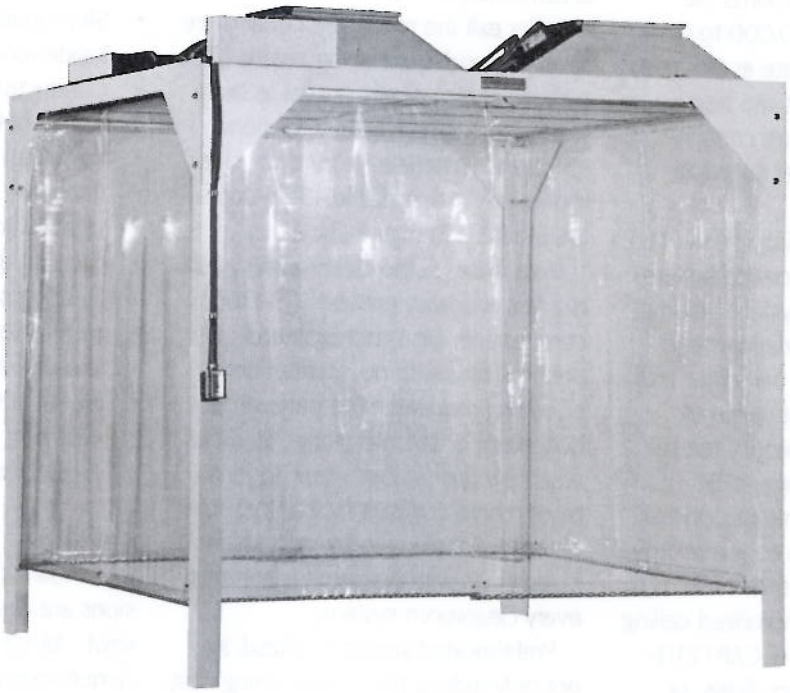


Series 575

Vertical Flow Softwall Modular Cleanroom

The Series 575 cleanroom is a cost-effective method of providing quality particulate control in a softwalled enclosure. The 2 x 4 ft. tubular steel NEST TIGHT ceiling grid system allows the cleanroom to enclose a large span without center posts. This system provides a durable, cost-effective, easy-to-assemble cleanroom system. A variety of sizes and shapes are available to ensure a system that is matched to your individual needs.

The rooms are free-standing and require only the building floor to support the NEST TIGHT ceiling grid system, HEPA filters, and cleanroom lights. This tubular frame is held in place by steel support legs to ensure a strong rigid structure. The entire frame and leg support system is finished with a white cleanroom-grade baked enamel paint.

The NEST TIGHT ceiling grid is used to maintain a leak-free ceiling system. The NEST TIGHT grid system utilizes a special gasketed, overlapped and interlocking nested tee bar joint. This eliminates the butt joint space of conventional non-cleanroom tee bar grid systems. The proven NEST TIGHT ceiling grid system eliminates one of the largest problems in a cleanroom – a leaking ceiling grid system.

Gasketed Series 112 HEPA filters, SEAL TIGHT cleanroom lights, and vinyl-covered blank ceiling panels complete the ceiling grid system. These gasketed components along with the NEST TIGHT ceiling grid system provide a zero-leak cleanroom ceiling which is essential for optimum cleanroom performance.

Features

- 2 x 4 ft. tubular steel frame with 4 x 4 ft. angle iron legs
- Large open spans up to 32 ft. with no center supports
- NEST TIGHT ceiling grid system maintains a leak-free ceiling system
- Complete with motorized ceiling HEPA filters, lights, ceiling panel, tee bars and prefab wiring – requires only assembly and single-point power connection
- Sturdy, durable cleanroom environment
- Fast delivery and easy installation
- Room Class 100,000 to Class 10

For more information or to download or fax this product from the web, simply go to:
www.cleanairproducts.com/575

Overview

The Series 575 cleanrooms are available from Class 100,000 to Class 10. They typically operate as positive pressure enclosures but can also be used as negative pressure containment areas to HEPA filter outgoing room air.

The NEST TIGHT ceiling grid is used to maintain a leak-free ceiling system. The NEST TIGHT grid system utilizes a special gasketed, overlapped and interlocking nested tee bar joint. This eliminates the butt joint space of conventional non-cleanroom tee bar grid systems. The proven NEST TIGHT ceiling grid system eliminates one of the largest problems in a cleanroom—a leaking ceiling grid system.

Gasketed CAP112 motorized ceiling HEPA filters, SEAL TIGHT CAP1210-2x4 (4) lamp cleanroom lights, or CAP1220-2x4 (4) lamp flow thru lights and vinyl-covered blank ceiling panels complete the ceiling grid system. The quantities of these items will depend on the size and class of the cleanroom. These gasketed components along with the NEST TIGHT ceiling grid system provide a zero-leak cleanroom ceiling which is essential for optimum cleanroom performance.

The quantity of filter units and lights will be determined by the chosen system. The rooms can be Class upgraded by adding additional HEPA filters to the system to create better "clean zones" or to upgrade the entire cleanroom system. This upgrade feature of the room ensures that the cleanroom will be able to meet the needs of future requirements.

The room is enclosed by a heavy-gage clear polished-vinyl curtain. These curtains are installed in sections with the top sealing against the support frame and the seams overlapped to prevent contamination from entering the clean space. The overlapped joints are located on 4-ft. centers, around the perimeter of the room. To enter or exit the room, the curtains are simply spread apart at the seams. The curtains automatically re-seal as the two halves come together. Optional styles and materials for hardwall sided rooms are also available. Strip doors are available in high traffic areas.

Installation of the cleanroom system is a fast and easy process. The room components are lightweight and prefabricated with no on-site fitting or cutting required. The parts simply bolt, snap, or set into place. Standard assembly time is just a few hours on most rooms (consult factory for more details). Simple step-by-step assembly instructions with diagrams accompany every cleanroom system.

Prefabricated wiring is utilized, to not only reduce the on-site wiring cost, but to also speed up the installation process. Assembly personnel "plug" the electrical components together as the room is being assembled. The electrician simply connects power to a single point on the cleanroom.

Standard

- 99.99% test on 0.3 micron HEPA filters
- Aluminum frame HEPA filters
- White lights
- Clear vinyl curtains
- 120 volts filters and lights
- White painted finish

Options (consult factory for additional items)

- 99.999% test on 0.12
- ULPA Filters (Class 10)
- Flow thru lights
- Micron ULPA filters
- Lights on outside of room
- Non-DOP test filters
- Casters
- Yellow lights
- Special room heights
- Pass Thru
- Yellow or opaque curtains
- Strip doors
- Inside room curtains
- Conductive curtains
- Acrylic or Lexan walls
- Ionization
- Economy swing doors
- Light switch
- Custom designs
- Building suspension bracket
- Hard exterior walls
- Prefab wiring kit
- Hard interior walls
- Gowning rooms
- All stainless steel frame

Curtains

Standard cleanroom curtain dimensions are clear 20 mil double-polished vinyl. All standard and optional curtain dimensions will be
54 in. x 84 in. x 20 mil thick and will contain a sewn/riveted loop at the curtain top and bottom. The bottom loop will house a chain weight to hold the curtain down.

An aluminum mounting channel will be enclosed in the top loop. The curtain will be pierced in the areas where screws will fasten the channel to the cleanroom ceiling beam. The top loop stitching stops 7 inches back from the edge so the curtains can overlap between sections.

Optional material:

- Static or non-static dissipative curtains are available in standard 20 mil and 40 mil optional curtain thicknesses.
- 13 mil yellow vinyl curtains are available with channel or velcro mounting. These curtains can be used for ultraviolet light filtration or photo-resist applications (yellow static dissipative not available).
- Clear double-polished conductive 20 mil vinyl with a diamond-shaped grid bonded to one side. These curtains are constructed to

allow for grounding, so that the carbon grid can dissipate the surface charge to ground. Attached with channel-top mounting and chain bottom.
- Black Herculite
- Yellow 13 mil used for ultraviolet light filtration. This can also be used with photo-resist applications. Attached with channel-top mounting and chain bottom.

NOTE: Special "extra length" curtains are available for all of the above materials.

Strip Doors

The strip door consists of (8) 8-in. wide strips with 2 in. overlap on each side along the length. This makes the standard strip door dimension 48 in. wide x 84 in. long x 80 mil thick. The strip doors are shipped assembled, with mounting angle on top. Optional material:
- Heavy 125 mil clear vinyl strips for high-traffic areas
- Clear anti-static vinyl
- Clear flame-retardant anti-static vinyl
- Yellow standard vinyl
- Yellow flame retardant vinyl

NOTE: Special "extra length" strip doors are available for all of the above materials.

Cleanroom Ceiling Height Requirements

The standard height dimension is 8 ft. Standard filter unit height is 14 in. A 7 in. minimum space is required between the filter unit top and ceiling. Standard room heights are 8, 9, and 10 ft. Other cleanroom heights are available.

Flow thru lights add 5-1/2 in. to standard filter unit height (see flow thru light description).

Acrylic or Lexan Walls With Economy Swing Door

Standard cleanrooms consist of soft-walled vinyl curtain and/or strip doors.

Acrylic or Lexan panels provide a sturdy, attractive, and economic cleanroom wall option. These panels are attached to the steel framing with 3M Dual Lock (cleanroom velcro-type material).

Economy swing doors also consist of these panels attached with velcro to steel framing. Included with the economy door are hinges and a door closer.

NOTE: Panel length cut to allow 12 in. opening along the bottom of the entire cleanroom to achieve proper airflow.

If you are looking for a cleanroom with acrylic walls, you may also want to look at the Series 591.

Cleanroom Ceiling Lights (standard)

Cleanroom lights consist of a 2x4 - 4 lamp - 120v, 60 Hz, 1.5 amp enclosed "seal tight" white fluorescent panel light.

Flow Thru Lights

Flow thru lights are similar to standard cleanroom lights with the exception that a motorized ceiling HEPA filter unit is mounted directly on top of it. This light fixture is open enough that filtered air is able to flow through the light fixture down into the cleanroom.

Flow thru lights are used when space for lighting is limited. For example, Class 10 conditions require 100% ceiling filter unit coverage. Providing the light sources beneath the filter unit becomes a viable solution to this space limitation. Flow thru lights are also valuable in situations where concentrated "clean areas" and lighting need to be achieved within a cleanroom.

The filter unit and light fixture are joined together at the factory with fasteners to form one complete flow thru light unit.

Casters

Casters with brakes are available on 12 ft. x 12 ft. and smaller cleanroom sizes.

Anteroom or Gowning Room Areas

Anterooms (to perform pre-cleanroom procedures) or gowning rooms are modular and can easily be added to the cleanroom. Mobility can be added to these rooms by adapting them with the caster option (on rooms 12 ft. x 12 ft. and smaller). The anterooms and gowning rooms can then be relocated to another location along the outside perimeter of the cleanroom for adaptation or modifications to manufacturing processes.

Prefab Electric Wiring Kit

Clean Air Products offers a prefab electric wiring kit as a cost and time effective option to conventional electrical wiring. It facilitates quick, easy "plug together" type electric connection of the lights and filter units by assembly personnel. The electrician simply connects power to a single point.

The "plug together" male/female connectors included with your prefab wiring kit are "Reloc" brand connectors. They are designed to be repeatedly plugged and unplugged as necessary.

Basic Components of the Prefab Wiring Kit

The basic components included with your prefab wiring kit are as follows:
- Metal "plug together" male/female connectors and "plug together" flex metal cable segments
- Electrical junction box
- Lights and ON/OFF light switch
- Speed control

Connections

The "plug together" system consists of "Reloc" brand metal connectors and "Reloc" brand metal flex cables.

The "plug together" system provides connection between the ceiling lights, filter units, and junction box, and is UL listed.

Electrical Junction Box

The electrical junction box contains light and filter unit circuit breakers and speed control adjustment switches. It also receives your building-supplied electric power source. It is located on the top horizontal beam near the outside corner of the cleanroom.

Lights and ON/OFF Light Switch

Ceiling lights are on their own separate 20-amp maximum electric circuit and are controlled by a standard light switch(es).

The ON/OFF switch is conveniently located on the cleanroom corner leg outside the curtain below the junction box.

Filter Units

Filter units are also on their own separate 20 amp maximum electric circuit 2.8 RLA (5 filters per 20 amp circuit).

Each filter unit has an electric junction box that has it's own ON/OFF switch mounted to it. The filter unit ON/OFF switch is not exposed to the cleanroom ceiling interior. An adjacent ceiling panel can be removed to gain access to it if necessary.

NOTE: Filter units and ceiling lights are not be on the same circuit.

Speed Control

The CAP112 fan filter unit (FFU) has a 3-speed switch located on the top of the unit. Low, medium, and high speeds are selectable. The switch can be moved to compensate for filter loading. If closer airflow adjusting is required, see option 1 or 2.

Option 1

Manually adjustable variable speed control – located on top of the FFU. The speed is adjusted by turning a knob on top of the FFU.

Option 2

Automatic speed adjustment. This speed control has a built-in sensor that measures the airflow of the unit. Once set, it will maintain a constant velocity until the filters need to be changed – eliminating the need to manually increase filter speed.

Assembly

Electrical assembly is simplified because all connections can be completed with a continuous series of "plug together" type cable segments and connectors.

The electric power for each series of lights and filter units begins with a "plug together" cable connection at the cleanroom electrical junction box. This cable then continues on to connect to any number in a series of lights or filter units within their circuit.

NOTE: Start by setting the lights and filter units in place. It is easiest to start closest to the cleanroom's prefab kit-included electric junction box, plugging in any number in a series of light or filter circuits.

Each ceiling light and filter unit has it's own electrical junction box that the cable connector is mounted to. The cable is then connected to the connection on the electrical junction box to complete the electric power connection.

The cables have "plug together" connectors attached on each end. These cables allow a series of connections to be made between any number of filter units or ceiling lights within their circuit.

NOTE: Reloc cables also have a connector on one end that is a 2-in-1 connector. One of the 2-in-1 connections of this single connector establishes connection to the next light or filter in the series. The other connection of this single 2-in-1 connector connects to the receptacle connector of the light or filter unit and supplies power to them.

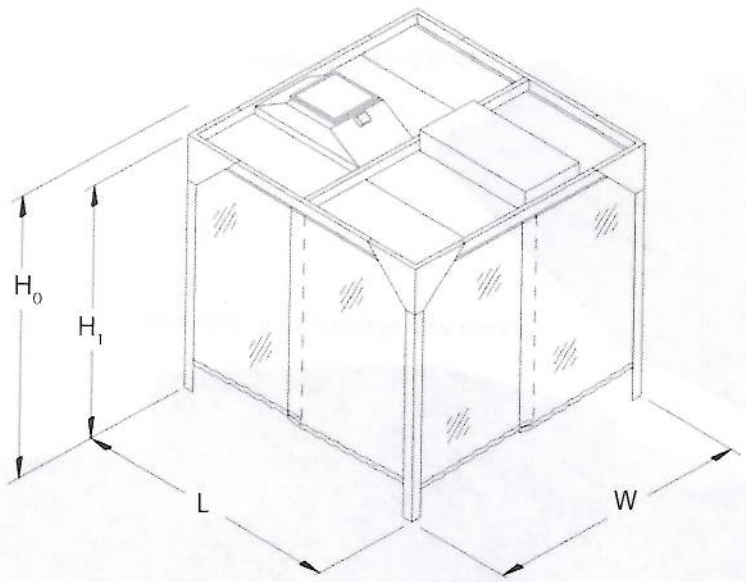
Serviceability

The "plug together" prefab wiring kit makes connecting and disconnecting ceiling lights and filter units for maintenance fast and easy.

Cleanroom light and filter unit relocation and additions can be made quickly by using the "plug together" connectors.

Guarantee

A written 1 year warranty is furnished with each cleanroom.



Standard Sizes

	Length (in.)	Width (in.)
6 ft. x 6 ft.	81	79
8 ft. x 6 ft.	105	79
8 ft. x 8 ft.	105	103
8 ft. x 12 ft.	105	151
8 ft. x 16 ft.	105	199
8 ft. x 20 ft.	105	247
12 ft. x 12 ft.	156	151
12 ft. x 16 ft.	156	199
16 ft. x 16 ft.	207	199
16 ft. x 20 ft.	207	247
20 ft. x 20 ft.	258	247
24 ft. x 24 ft.	311	271
24 ft. x 48 ft.	617	271

Custom sizes available upon request.
Consult factory for spans up to 24 ft.
Outside dimension shown.
Inside = Outside - 5
Recommended to have 7 in. clearance above unit to properly service filters and light. Consult factory for details.
Seismic units available but must be specifically quoted to meet specific seismic conditions. This will change the overall dimensions.

	Inside Height (in.) H_1	Overall Height (in.) H_0
8 ft.	96	110
9 ft.	108	122
10 ft.	120	134

H_0 = maximum height of filters and lights.

Flow thru lights add 5 in. to height.

Specifications subject to change. Please contact factory for details.

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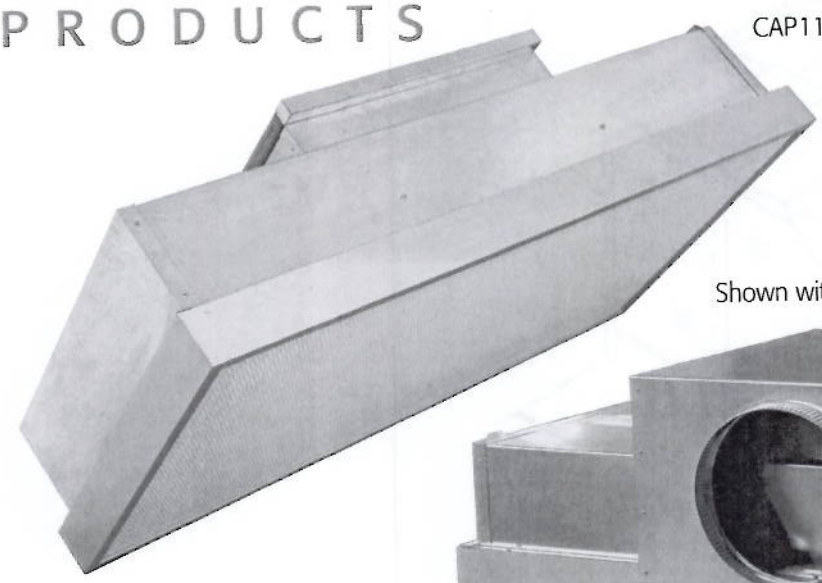
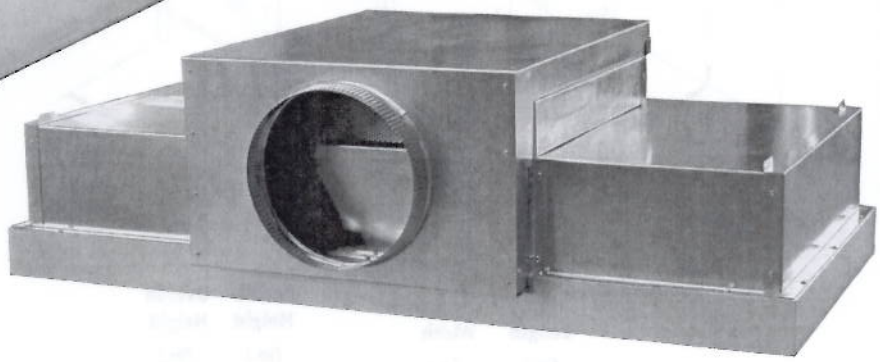
Clean AIR PRODUCTS

CAP112-424 Standard



Shown with optional 10 in. side inlet



Series 112

Motorized Ceiling Filter Module

The Series 112 is a fan filter unit (FFU), or it is sometimes called a MCF (motorized ceiling filter). This fan filter unit is a self-contained filter unit that draws air in through a top-mounted prefilter. It then blows the air out the other side through a HEPA or ULPA filter into a controlled space. A typical application is installing it into a 2 ft. x 4 ft. ceiling grid system, however, fan filter units can also be mounted on a support frame or suspended from a support structure.

The galvanized steel blower housing screws to the top of an aluminum-framed HEPA or ULPA filter. The internal direct drive blower/motor assembly is isolated from the exterior housing by torsion flex motor mounts and rubber vibration isolation mounts. Internal acoustical foam baffles reduce sound and enhance airflow uniformity.

Features

- Self-contained design
- Lightweight
- All-metal filter housing
- Easily installs into a 2 ft. x 4 ft. ceiling grid system
- Standard unit ships with a HEPA filter and prefilter
- Internal acoustical foam baffles for reduced sound
- UL listed
- Operates at low, medium, and high speeds

For more information or to download or fax this product from the web, simply go to:
www.cleanairproducts.com/112

The standard Series 112 fan filter unit is shipped with a HEPA filter, a clear anodized aluminum frame, and an integral white-painted expanded-metal grill on its face. The standard unit is tested with polystyrene beads.

The prefilter installs on the top of the fan filter unit and is changed without the use of tools. The standard unit ships with a 20 in. x 20 in. x 1 in. craft board framed fiberglass prefilter. The unit is designed to accept a 20 in. x 20 in. x 4 in. pleated filter for applications where a higher degree of prefiltering is required.

The Series 112 fan filter unit is a UL listed assembly that operates at 120 volts, 60 Hz. Each unit comes with an on/off switch for low, medium and high speeds, as well as an electrical junction box.

Speed Control

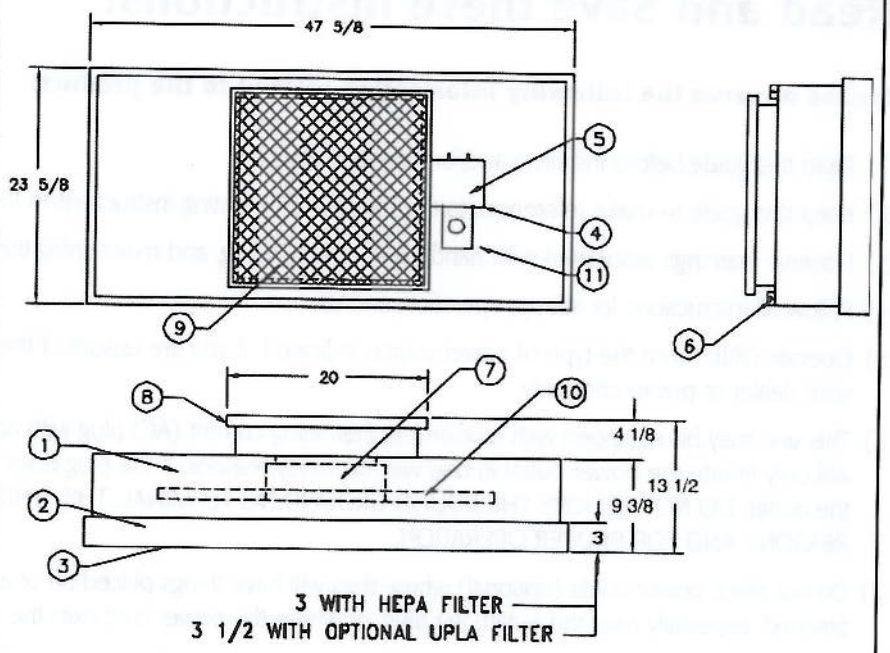
The CAP112 fan filter unit (FFU) has a 3-speed switch located on the top of the unit. Low, medium, and high speeds are selectable. The switch can be moved to compensate for filter loading. If closer airflow adjusting is required, see option 1 or 2.

Option 1

Manually adjustable variable speed control – located on top of the fan filter unit. The speed is adjusted by turning a knob on top of the fan filter unit.

Option 2

Automatic speed adjustment. This speed control has a built-in sensor that measures the airflow of the fan filter unit. Once set, it will maintain a constant velocity until the filters need to be changed – eliminating the need to manually increase filter speed.



1. Galvanized metal plenum cover
2. HEPA final filter
3. Protective face guard
4. Electric box – 120 V, 60 Hz
5. On/Off switch with 3-speed high/medium/low switch
6. Hanger holes
7. Blower/motor
8. Prefilter, 20 x 20 x 1
9. Prefilter frame
10. Sound baffle
11. Speed control (optional)

	High	Medium	Low
CFM	770	675	560
Velocity	100 LFPM	85 LFPM	70 LFPM
Amps	2.8	2.0	1.5
Decibles	53 dBa	51 dBa	49 dBa

UL Listed
Weight: 70 lb.

Options:

- ULPA filter
- Painted steel blower housing
- Stainless steel blower housing
- Speed control
- Power cord
- 20 in. x 20 in. x 4 in. high capacity prefilters
- Plug together wiring cables
- 10 in. side inlet duct
- 10 in. top inlet duct
- In-line prefilter hood with 10 in. connector
- AC inlet

Guarantee

A written 1 year warranty is furnished with each fan filter unit.

Specifications subject to change. Please contact factory for details.

Read and Save these Instructions!

Please observe the following information related to the product:

1) Read this guide before installing and/or operating the unit.
2) Keep this guide to make references to the safety and operating instructions in the future.
3) Observe warnings associated with handling, installing, using, and maintaining the CAP575.
4) Follow all instructions for set-up, operation, and use.
5) Operate ONLY from the type of power source indicated. If you are unsure of the type of power available to you, contact your dealer or power company.
6) This unit may be equipped with a polarized alternating current (AC) plug with one blade wider than the other. This plug will only fit into the power outlet in one way for safety reasons. If the plug does not fit, call an electrician to replace the outlet. DO NOT REMOVE THE ROUND GROUNDING TERMINAL. THIS UNIT MUST BE GROUNDED FOR SAFETY REASONS AND FOR PROPER OPERATION.
7) Do not place power cords (optional) where they will have things placed on or against them, be walked upon, or be pinched, especially near the outlet, the plug, or where the power cord exits the unit.
8) Overloading outlets and/or extension cords can result in fire and/or electrical shock.
9) ONLY use parts supplied or authorized by the manufacturer. Substitutions may result in fire, electrical shock, or other safety hazards.

Safety Warnings

1) NEVER expose the assembly to moisture or rain.
2) If the unit gets wet, disconnect the power at the source and have an authorized service inspection before using it again.
3) Do not pull on the optional power cord to unplug the unit, and never handle the cord with wet hands.
4) Do not clean the unit with flammable chemicals.
5) Do not expose to explosive or hazardous vapors or materials.
6) Make sure the unit is well supported to prevent falling.
7) Do not block airflow to the unit.
8) Disconnect the power before servicing.
9) Do not operate below 0 degrees Fahrenheit or above 110 degrees Fahrenheit.
10) This unit is designed to operate in a non-hazardous (non-explosive) environment with non-condensing air.
11) NEVER put objects into the blower.
12) Do not operate without metal blower guard.
13) Review application with your safety commissioner for proper use.

Assembly, Operation & Maintenance

Shipments

Clean Air Products takes every reasonable precaution to ensure that your equipment arrives without damage. However, damage can occur in any shipment and it is important that you note visible damage immediately with a notation on the consignee's copy of the freight bill. Terms are F.O.B. factory, unless otherwise stated. Your inspection of either visible or concealed damage is the basis of your filing a claim (which you must do at once) against the carrier.

Performance Specifications

All equipment is thoroughly inspected at the Clean Air Products factory at the time of shipment. Quality control is maintained by constant surveillance over the products, beginning at the receipt of purchased material and concluding with a final inspection which certifies performance as well as to any unique requirements of each project. In all instances where product quality cannot easily be assessed on the end item, the product is inspected during sub-assembly fabrication. All electrical components are UL listed. All mechanical components are fabricated or purchased and inspected to performance requirements before assembly into the final product.

Laboratory Testing and Certification

The room class is determined by a particle count with the room running in static and unoccupied condition 36 in. below the ceiling and 36 in. from the side walls with a MET 1 particle counter set on 0.5 micron size particles. Three one cubic foot samples shall be taken with the reading being the average of the three. The airflow out of the HEPA filter from the filter face being 650 CFM.

Assembly of the Series 575

If any time during the assembly process you have questions regarding the installation please give us a call toll free. We have experienced technicians who will be able to answer your questions. A quick phone call can save you time and effort during the assembly process.

General

The Series 575 is constructed of (4) 2-in. x 4-in. pieces of rectangular tubing that form the perimeter of the frame. This frame is held together at the corners by a triangular shaped corner brace. These braces bolt onto the outside of the 2-in. x 4-in. tubes forming the outside support frame.

Internal 2-in. x 4-in. tubes or "beams" fasten onto this outside support frame. These "beams" which are installed on 4-ft. nominal centers form the load supporting members of the ceiling grid system.

This framework is then raised and supported at the (4) corners by angle iron legs. To this assembly the filters, lights, blank panels, and "tee bar" grid cross members are added. The clear vinyl curtains are attached to the underside of the outer support frame.

Terms

Side Tubes are 2-in. x 4-in. tubing with (2) 1/2-in. holes on each end of the tube. The length of these tubes are about 2 in. longer than the inside length of the room.

End Tubes are 2-in. x 4-in. tubing with (2) 1/2-in. holes on the end and have a 1.5-in. angle welded to one side. The angle has rectangular notches running the entire length. End tubes run parallel to the Beam Tubes.

Beam Tubes are 2-in. x 4-in. tubing that have 1.5-in. notched angles on both sides and a 5-in. wide flat bottom cover plate connecting them.

Corner Braces are heavy gage triangular shaped brackets that are 22 in. long x 22 in. wide and 18 in. high. They have (2) 9/16-in. diameter holes on each of the 22-in. faces and 4 holes on the top.

Legs are 4-in. x 4-in. x 1/4-in. angle iron with (4) 9/16-in. slotted holes on one end and a leg pad on the other. Casters (optional) are not shipped on the legs but in a separate box.

Side Angles are 3/4-in. x 2.5-in. x 47.375-in. long sheet metal angles with a series of 3/6-in. diameter holes along the 3/4-in. leg.

Curtain Channel are 3/4 in. H x 1 in. W x 48 in. L aluminum channels with 3 holes in the channel.

Curtains are clear vinyl sheets of plastic with a loop sewn in the top and bottom. The top of the curtain is the end that has the loop and chrome fastener stopping 7 in. from one edge. The bottom has the loop sewn to both edges. The chrome snap-like fasteners are not designed to snap together but to prevent the vinyl loop from separating.

Electric Panel (included only with the prefab wiring option) is a white vinyl clad steel bracket with (4) 11/16-in. square electrical boxes that contain a series of Relock receptacles. The lights and filters will plug into the Relock receptacles. Units that have a light switch have a flexible metal conduit coming out of the bottom of the box and going to a light switch electrical box.

Filters are 99.99% HEPA filters with an internally mounted, thermally protected, backward curved blower wheel. Each "filter assembly" will have its own Relock if the prefab wiring option was ordered. Other filter options are available.

Blank Panels are white vinyl covered ceiling panels that are normally 2-ft. x 4-ft. nominal dimensions.

Lights are a special clean room style light with a removable clear diamond shape aluminum frame light diffuser. When the prefab wiring option is ordered a Relock cable will be attached to the light housing.

Tee Bars are special 1.5-in. wide aluminum extruded "tee" sections that set onto the end tubes and beam tubes between the filters, lights and blank panels.

Installation

1. Locate 2 side tubes and 2 end tubes that make up the support frame.
2. Set 2 of the end tubes and 2 of the side tubes on cardboard pads on the ground with the 1/2-in. holes pointing upward. Set 1 of the corner braces at each corner. The corner braces fit over the outside of the tubes. Four 1/2 in. diameter bolts go through the top of the corner brace and into the 1/2-in. threaded holes of the end tubes and side tubes. With all 4 corner braces attached, the 2-in. x 4-in. outer tube frame will be about 14 in. off the ground.

NOTE: The side tubes are 2 piece on some rooms. This requires a center leg and center support bracket

Center Leg Support Assembly (not on all rooms)

Set the side tubes on the floor and bolt on the center leg support bracket. Bolt the outside center leg bracket to one side of the side tubes using 1/2-in. bolts. **Be sure to put in the washers.** Do not tighten the bolts before the beam tube is positioned under the outside center leg bracket. Next bolt the inside center leg bracket. Use the only 1/2-in. flat head bolts to bolt the inside bracket to the outside bracket. This bolt is simply to hold the brackets together while the leg is being put on.

On rooms with more than one center leg, the room should be assembled with the center leg support bracket acting as the corner and add tube frame parts from there.

NOTE: The electrical panel gets bolted on using the set of bolts from the leg brace. You must determine the location form the top view of the room layout.

NOTE: The 1/2-in. diameter bolts should be left loose until the center beam tubes are installed.

3. Place the beam tubes into the assembled frame from the top. The 5 in. cover piece with notched 1.5-in. angles faces down. On the end of the beam tubes there is an angle with a hole in it that should match a 3/16-in. diameter hole on the top side of the end beam. These holes will be located 51 in. from the inside edge of the side beam and 51 in. thereafter. The beam tubes are held in place by one 1/4-in. diameter self-threading bolt.
4. With beam tubes installed, tighten all the 1/2-in diameter bolts.
5. Raise up the 2-in x 4-in end and side tubes with corner support and bolt on the legs. One of the legs may have been drilled for a light switch. This leg is labeled. The leg with the switch should be installed into the corner with the electrical panel. Note the electrical panel, light switch and prefab wiring are an option.

6. Screw the side angles to the side tube using #10 self-drilling screws. The side angle is installed so the 2.5-in. face sets into the notches in the end tube and beam tube bottom plates. The 3/4-in. leg with the holes screws to the side of the end tube.
7. The light switch can be screwed to the leg using #10Fx1/2 Pan Head Phillips screws.
8. The filters and lights can be set into the ceiling. They are installed by putting one 2-ft. side over the beam tube until the other one can be pushed up. Center the filter or light and install a tee bar along the 4-ft. side. The tee bar ends fit into the notches along the end tubes and beam tubes. The power cord can be fitted into the electrical panel as the components are installed.
9. Curtain installation is as follows: The aluminum channels and perimeter tubes have been predrilled. Slide one of the channels into the upper loop of a curtain. Start in one corner along an end tube and install the curtain flush with the first corner, The curtain end with the loop sewn to the end should be at this corner. Pierce the outer side of the channel loop at the site of the predrilled channel holes. Install the curtain by inserting a #8 self tapping screw through the perforation in the curtain and screw this assembly to the tube in three places. Loosen the end screw and install the next curtain in the same manner as the first. The loop of the second curtain should go around the first channel so that the curtains overlap approximately 6 in. The curtain end not sewn all the way should be tucked under the next channel. The rest of the curtains should be installed in the same manner as should any optional strip curtain. The lower loop of the curtains contains a chain that weighs the curtain down so that the bottom is approximately 12 in. from the floor. This insures proper air flow through the clean room.

Thank you for purchasing your clean room system from Clean Air Products. Please let us know how the assembly of the clean room went. We welcome comments.

Operation and Maintenance of the Series 575

Daily Start-Up

Turn on all the filters at least 30 minutes prior to start up. (If the filters have been off for more than 72 hours, turn them on 1 hour prior to start up.)

Daily Maintenance

Damp mop the floors of both the ante room and clean room.
Change the clean room entrance mats.
Check that all of the main blowers are running.

Weekly Maintenance

Wipe down all horizontal work surfaces.
Wipe down all door knobs and handles or entrance curtains/strip doors.
Wipe down garment storage lockers.

Six Month Maintenance

Check the prefilters.
Check the velocity and particulate count in the clean room.

Annual Maintenance

Have a trained refrigeration technician analyze the oil and charge of the air conditioning system in rooms so equipped. Do a complete room interior clean room wipe down of all equipment and walls.

NOTE: The above schedule is for an average room in an average environment. The frequency of inspections and cleaning may vary depending upon the number of people using the room and the operating conditions outside the room.

Spare Parts

Spare parts for your Series 575 clean room are available through the factory. Additionally, you may choose to add options at a later date. The following spare parts may be purchased by calling Clean Air Products:

- Prefilters
- HEPA filters
- Relock cables and connectors
- Curtains
- Strip doors
- Curtain channels
- Chain weights for curtains
- Flow thru light grills
- Speed control
- Blank ceiling panels

Cleanroom Equipment and Supplies

All clean room equipment and supplies should be purchased through a dealer specializing in that type of product.

Seismic Requirements

California and other regions of the country that are subject to seismic activity may have special installation and/or building requirements that help prevent equipment from falling or dropping out of a ceiling during an earthquake. In many cases these safety requirements are simply safety chains that secure the lights and filters to the building. Certain local codes may have slightly different requirements depending on the seismic zone.

Our standard cleanrooms are furnished with seismic mounting holes on the filters and Series 575 frame for attaching earthquake safety chains. The safety chains, eye bolts and miscellaneous building attaching hardware are not included in the cleanroom price.

If Clean Air Products is doing the installation of the cleanroom, we will need to know specifics about the building in order to quote installing safety chains. The installation of any cleanroom seismic safety equipment will be quoted as a separate line item.

Warranty for Cleanroom & Equipment

Clean Air Products Corporation warrants that it will repair FOB its factory or furnish without charge FOB its factory a similar part to replace any material in its equipment within one year after the date of sale if proved to the satisfaction of the company to have been defective at the time it was sold provided that all parts claimed defective shall be returned, properly identified to the company at its factory, freight charges prepaid. Factory installed equipment of accessories is warranted only to the extent guaranteed by the original equipment manufacturer, and this warranty shall not apply to any portion of the equipment modified by the user. Claims under this warranty should be directed to Clean Air Products, 8605 Wyoming Avenue North, Brooklyn Park, MN 55445, setting forth in detail the nature of the defect, the date of the initial installation, and the serial number and model number of the equipment.

HEPA filters are warranted to have their given efficiency at the time of shipping.

Parts shipped to replace warranty items shall be invoiced out with 60 day terms. Credit shall be issued when defective parts are returned to Clean Air Products' factory. (Contaminated materials shall be credited after receipt of proper disposal is sent to Clean Air Products.)

When special shipping containers are used to ship out new product, defective parts are to be returned in the same container. This shall be so stated on the Bill of Lading sent with the replacement parts.

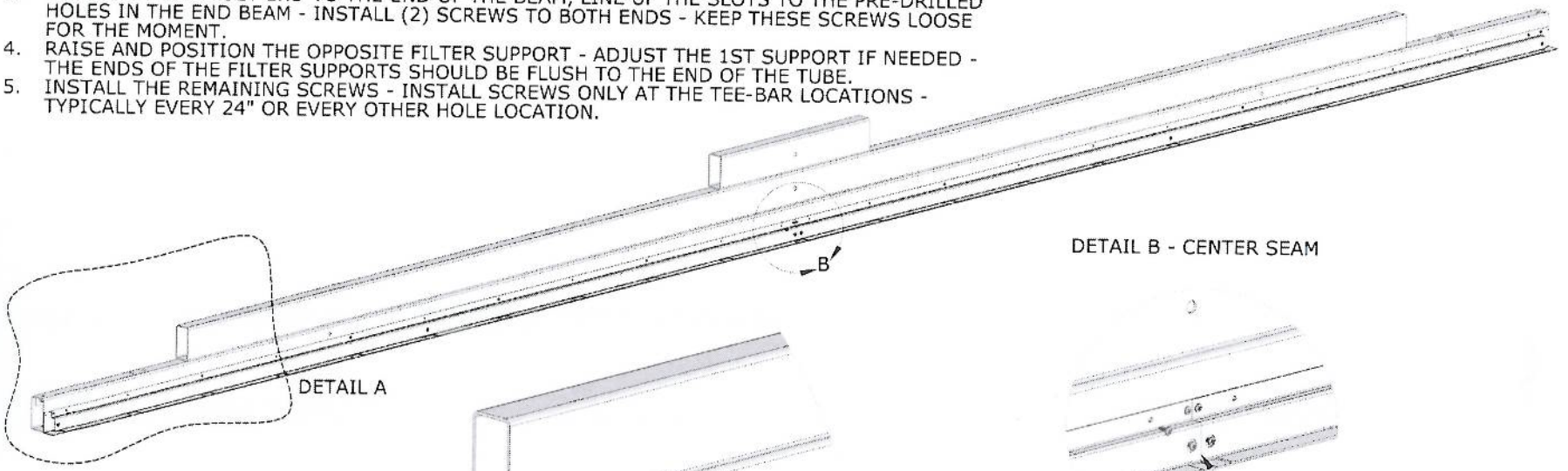
Contaminated Parts and Equipment

Clean Air Products must be notified if defective parts, or other materials supplied to the purchaser are contaminated with hazardous chemicals or carcinogenic materials that are considered hazardous or carcinogenic by the EPA or other regulatory agencies. These parts are not to be shipped back to Clean Air Products' factory. The purchaser shall be responsible for proper disposal and all costs associated with the disposal and/or storage of the defective contaminated equipment. Prior to their disposal, Clean Air Products may require inspection of said defective materials.

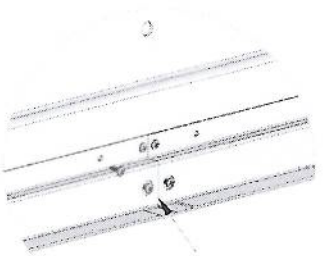
The user and purchaser shall each be responsible and be back charged for cleanup and disposal of all contaminated materials shipped back to Clean Air Products' factory.

INSTRUCTIONS - LOWER FILTER SUPPORT (END BEAMS) - FOR BEAMS 10' AND LONGER

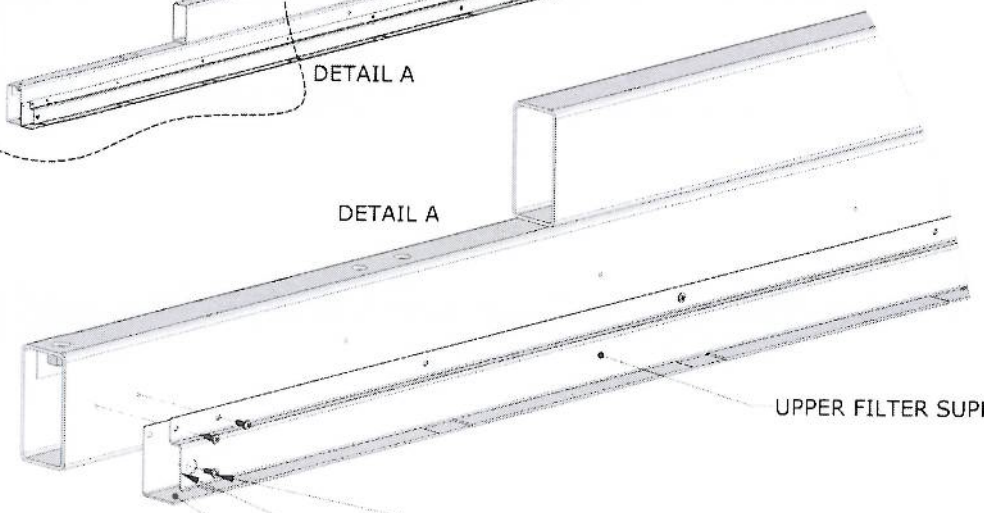
1. THE LOWER FILTER SUPPORTS CAN INSTALLED BEFORE THE BEAMS ARE INSTALLED OR AFTER.
2. LOCATE THE FILTER SUPPORTS AND NOTICE THE (2) DIFFERENT END STYLES - ONE END WILL BE FLUSH WHILE THE OPPOSITE END WILL HAVE AN OFFSET BETWEEN THE LOWER AND UPPER SUPPORTS.
3. POSTION THE OFFSET END TO THE END OF THE BEAM, LINE UP THE SLOTS TO THE PRE-DRILLED HOLES IN THE END BEAM - INSTALL (2) SCREWS TO BOTH ENDS - KEEP THESE SCREWS LOOSE FOR THE MOMENT.
4. RAISE AND POSITION THE OPPOSITE FILTER SUPPORT - ADJUST THE 1ST SUPPORT IF NEEDED - THE ENDS OF THE FILTER SUPPORTS SHOULD BE FLUSH TO THE END OF THE TUBE.
5. INSTALL THE REMAINING SCREWS - INSTALL SCREWS ONLY AT THE TEE-BAR LOCATIONS - TYPICALLY EVERY 24" OR EVERY OTHER HOLE LOCATION.

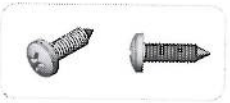


DETAIL B - CENTER SEAM



LOWER AND UPPER FILTER SUPPORTS ARE FLUSH AT THE ENDS (CENTER SEAM)





#8DR X 1/2"
SELF DRILLING SCREW

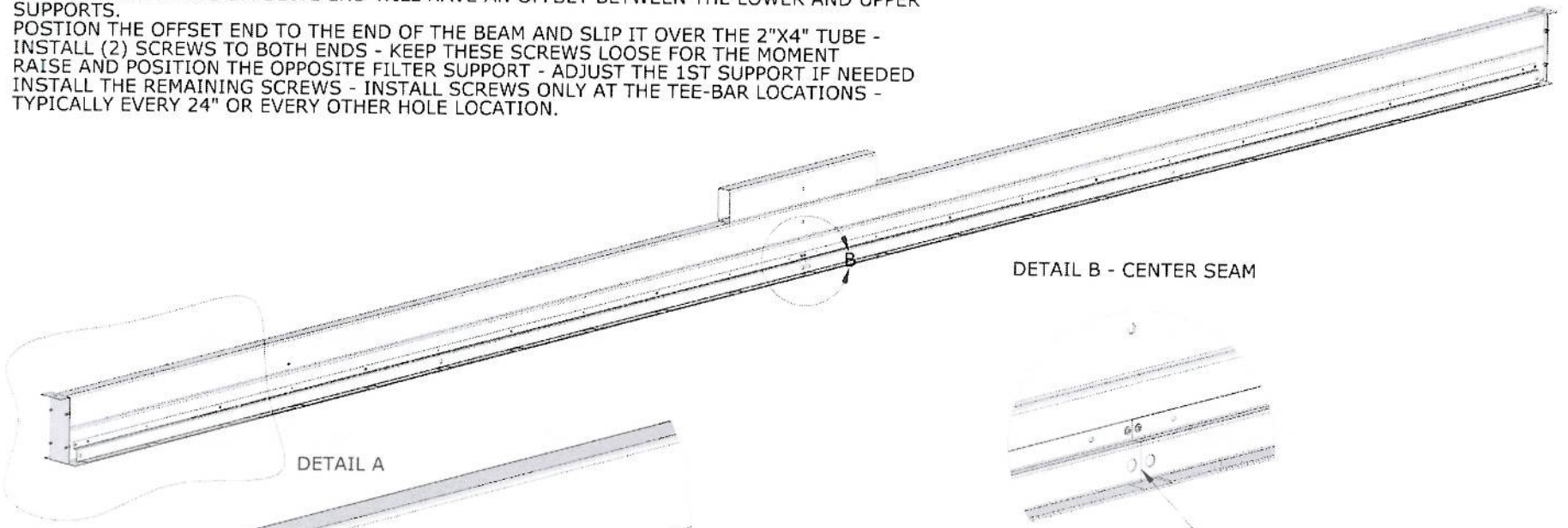
Clean AiR PRODUCTS
8605 WYOMING AVENUE NORTH
MINNEAPOLIS, MN. 55445 (763) 425-9122
(800) 423-9728

CLEAN ROOM - SOFT WALL
CAP575 - FILTER SUPPORT INSTRUCT., 10'+ END BEAMS

CDG 04 MAR 2009
575\ A
138468.0620 -

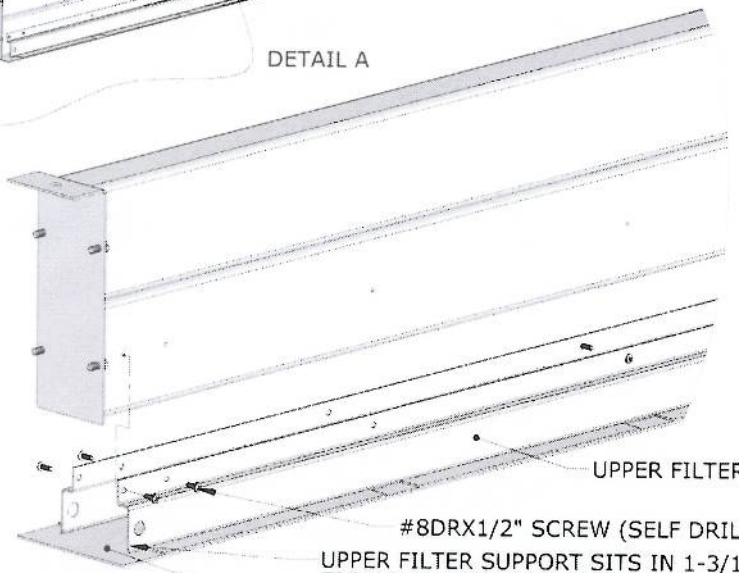
INSTRUCTIONS - LOWER FILTER SUPPORT (BEAMS) - FOR BEAMS 10' AND LONGER

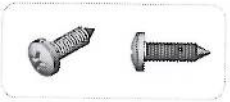
1. THE LOWER FILTER SUPPORTS CAN INSTALLED BEFORE THE BEAMS ARE INSTALLED OR AFTER.
2. LOCATED THE FILTER SUPPORTS AND NOTICE THE (2) DIFFERENT END STYLES - ONE END WILL BE FLUSH WHILE THE OPPOSITE END WILL HAVE AN OFFSET BETWEEN THE LOWER AND UPPER SUPPORTS.
3. POSTION THE OFFSET END TO THE END OF THE BEAM AND SLIP IT OVER THE 2"X4" TUBE - INSTALL (2) SCREWS TO BOTH ENDS - KEEP THESE SCREWS LOOSE FOR THE MOMENT
4. RAISE AND POSITION THE OPPOSITE FILTER SUPPORT - ADJUST THE 1ST SUPPORT IF NEEDED
5. INSTALL THE REMAINING SCREWS - INSTALL SCREWS ONLY AT THE TEE-BAR LOCATIONS - TYPICALLY EVERY 24" OR EVERY OTHER HOLE LOCATION.



DETAIL B - CENTER SEAM

LOWER AND UPPER FILTER SUPPORTS ARE FLUSH AT THE ENDS





#8DR X 1/2" SELF DRILLING SCREW

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8605 WYOMING AVENUE NORTH
MINNEAPOLIS, MN. 55445 (763) 425-9122
(800) 423-9728

CLEAN ROOM - SOFT WALL
CAP575 - FILTER SUPPORT INSTRUCTION, 10' + BEAMS
CDG 04 MAR 2009
575\ A
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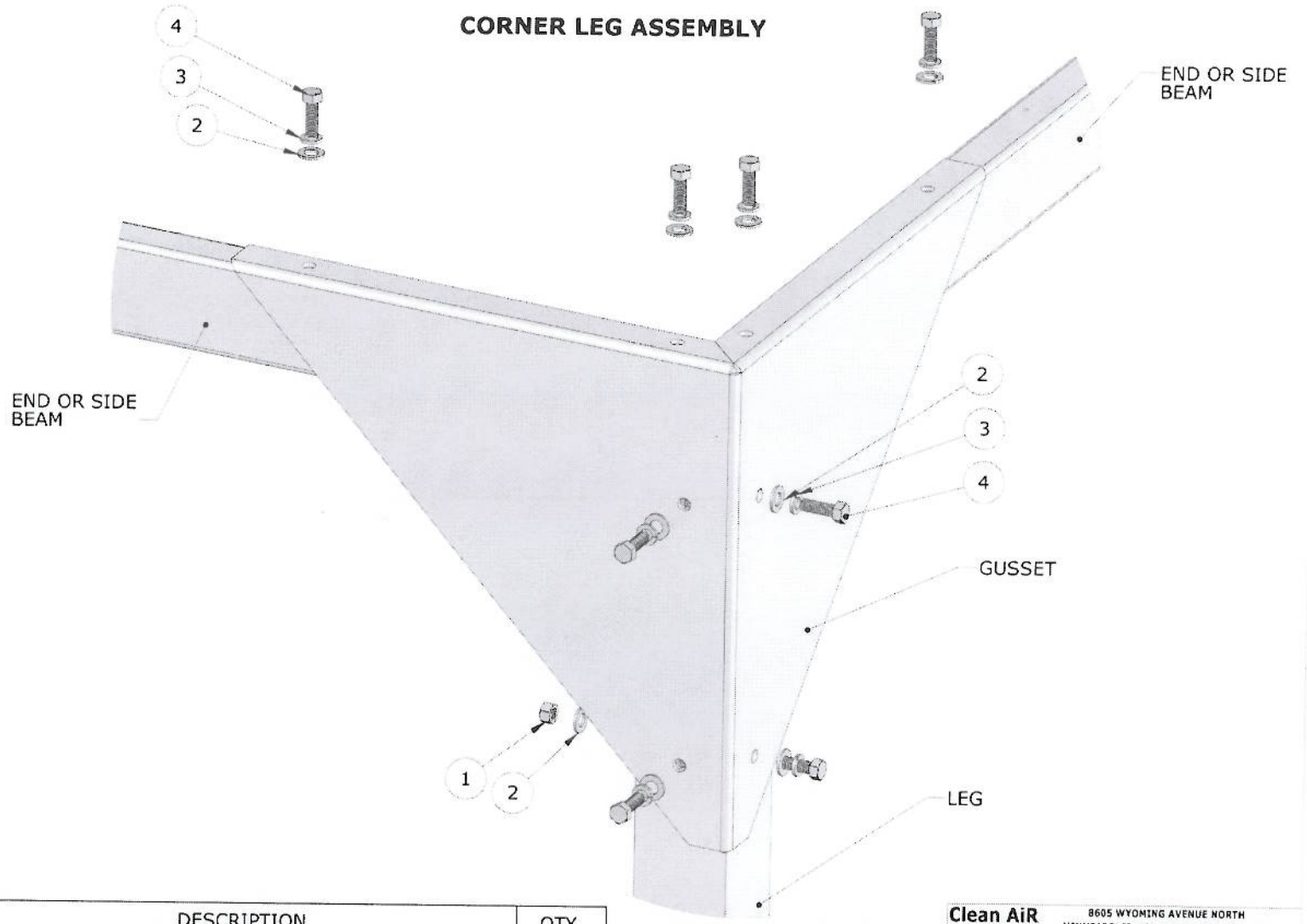
CORNER LEG ASSEMBLY



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	N5013HXFFMZ	1/2-13 STEEL NUT	4
2	W5000FSA06MZ	1/2" SAE FLAT WASHER	12
3	W5087SLS13MZ	1/2" LOCKWASHER	8
4	B1/2-13M1-1/2HXGR5Z	BOLT - 1/2-13 UNC x 1-1/2" LG. HEX HEAD GRADE 5	8

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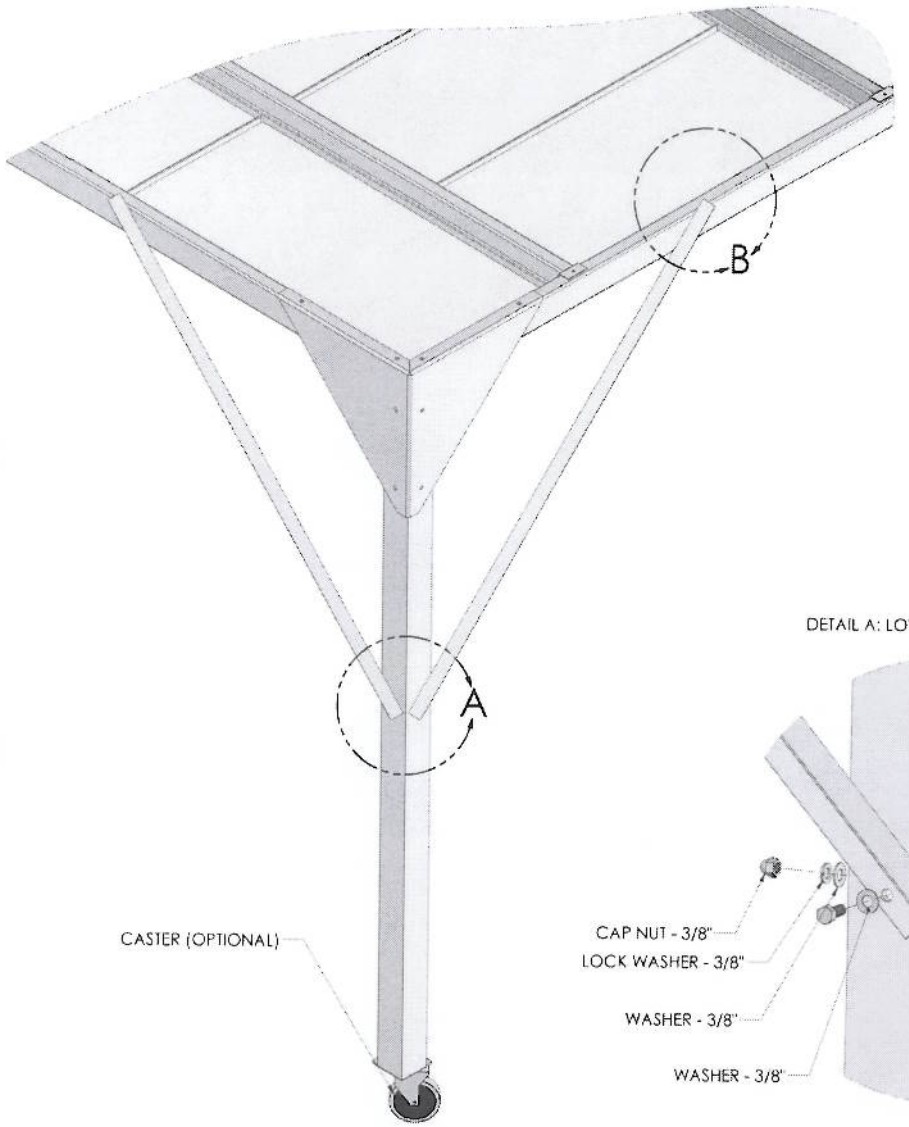
(800) 423-9728

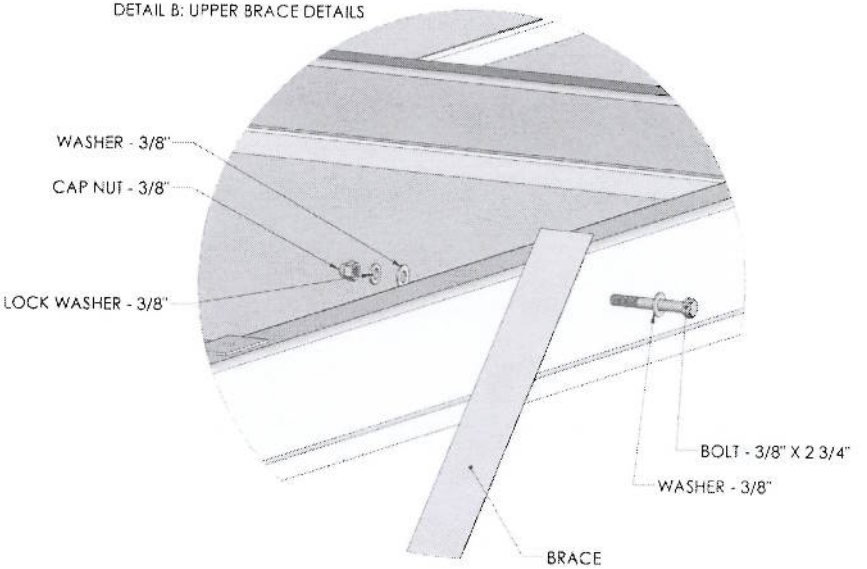
CLEAN ROOM - SOFT WALL
CAPS75 - CORNER LEG ASSEMBLY (DETAILS)

CDG	03 JUN 09		
575\		A	

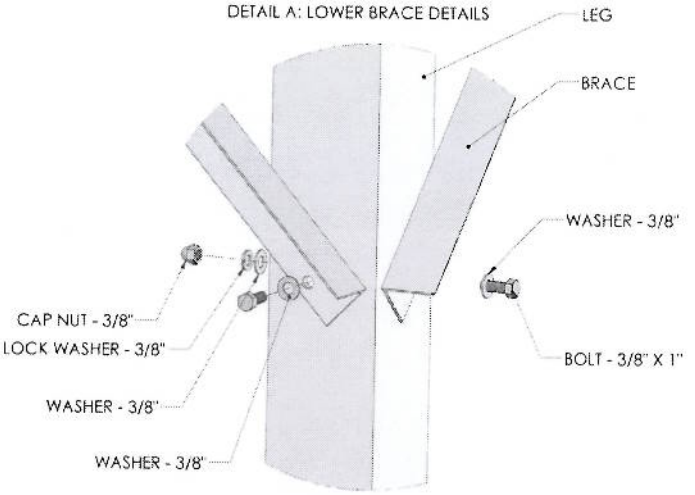
136718.0150 -



DETAIL B: UPPER BRACE DETAILS



DETAIL A: LOWER BRACE DETAILS



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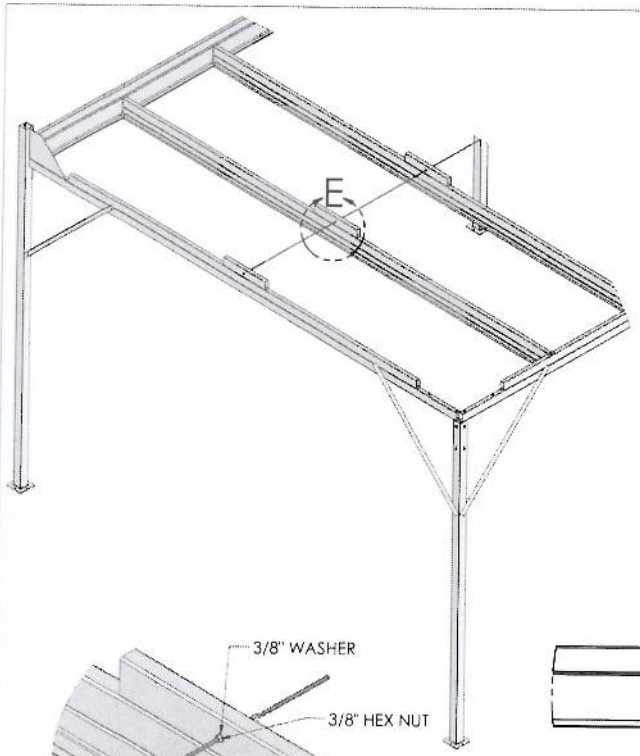
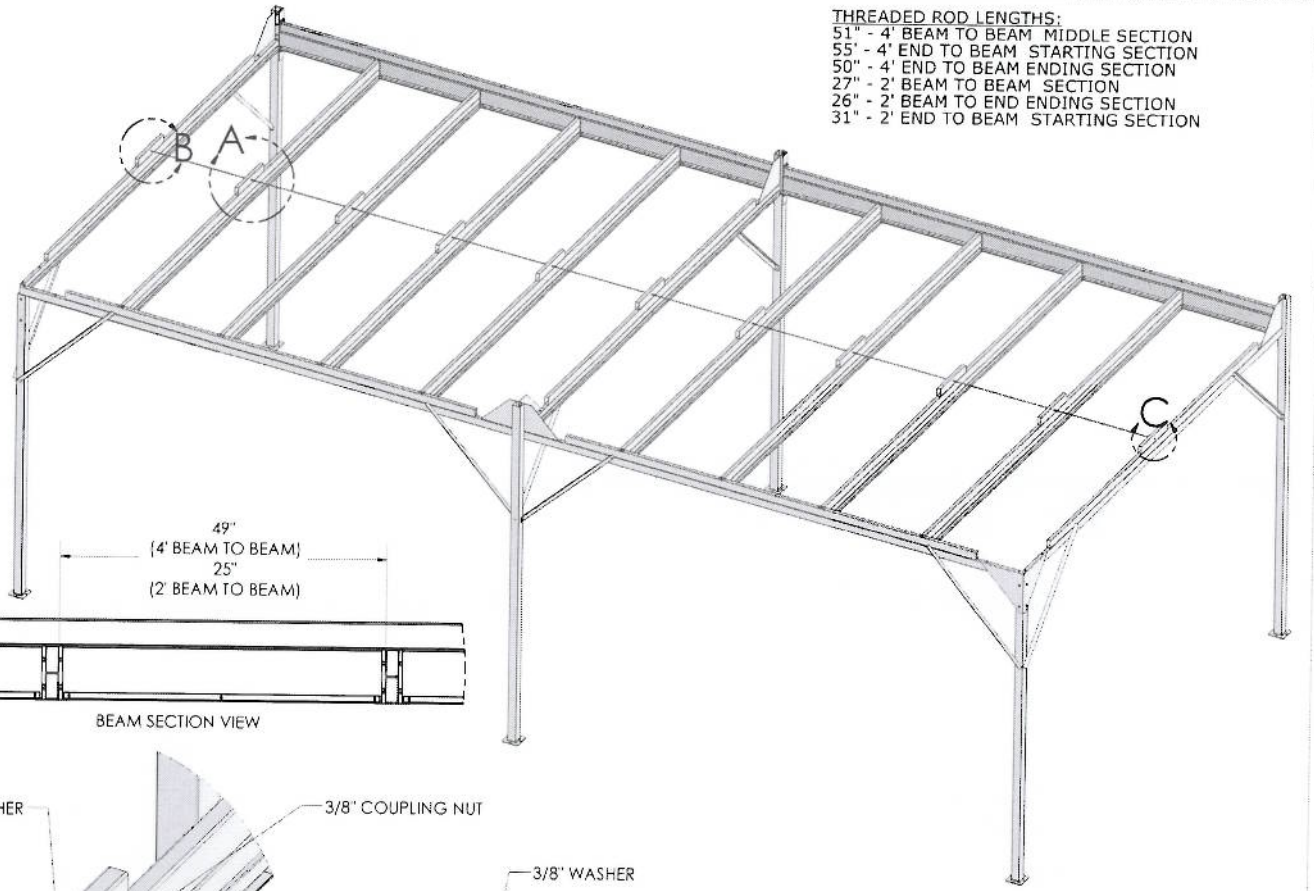
(800) 423-9728

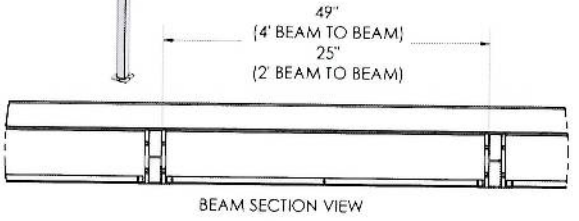
CLEAN ROOM - SOFT WALL
CAP 575 - LEG BRACE ASSEMBLY

CDG	23 JULY 2008	
575\	B	
		141856.9002

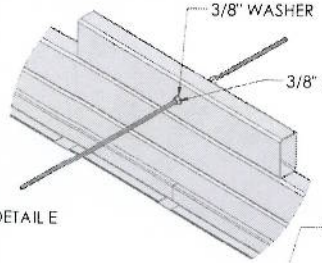




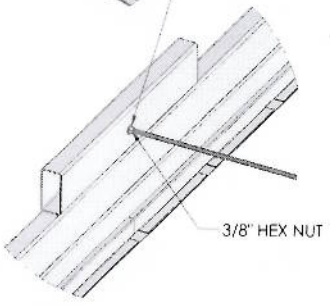
THREADED ROD LENGTHS:
51" - 4' BEAM TO BEAM MIDDLE SECTION
55' - 4' END TO BEAM STARTING SECTION
50" - 4' END TO BEAM ENDING SECTION
27" - 2' BEAM TO BEAM SECTION
26" - 2' BEAM TO END ENDING SECTION
31" - 2' END TO BEAM STARTING SECTION



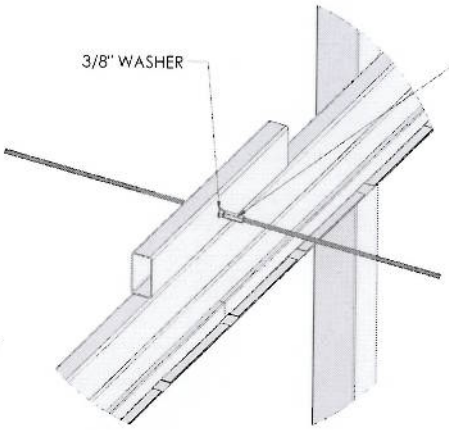
BEAM SECTION VIEW



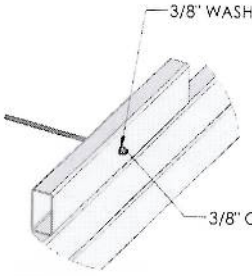
DETAIL E



DETAIL B



DETAIL A



DETAIL C

INSTALLATION:
DUE TO THE BAKED ENAMEL PAINTING PROCESS, SOME LONG BEAM SECTIONS CAN HAVE A SLIGHT ARC OVER THE LENGTH OF THE BEAM. THIS THREADED ROD SYSTEM WILL HELP STRAIGHTEN ANY SECTIONS THAT ARE NOT STRAIGHT.

1. INSTALL THE THREADED ROD SYSTEM OVER THE ENTIRE WIDTH OF THE ROOM.
2. LOOSEN AND ADJUST THE HEX NUTS ON BOTH SIDES OF EACH BEAM TO STRAIGHTEN OUT EACH BEAM SECTION.

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(800) 423-9728

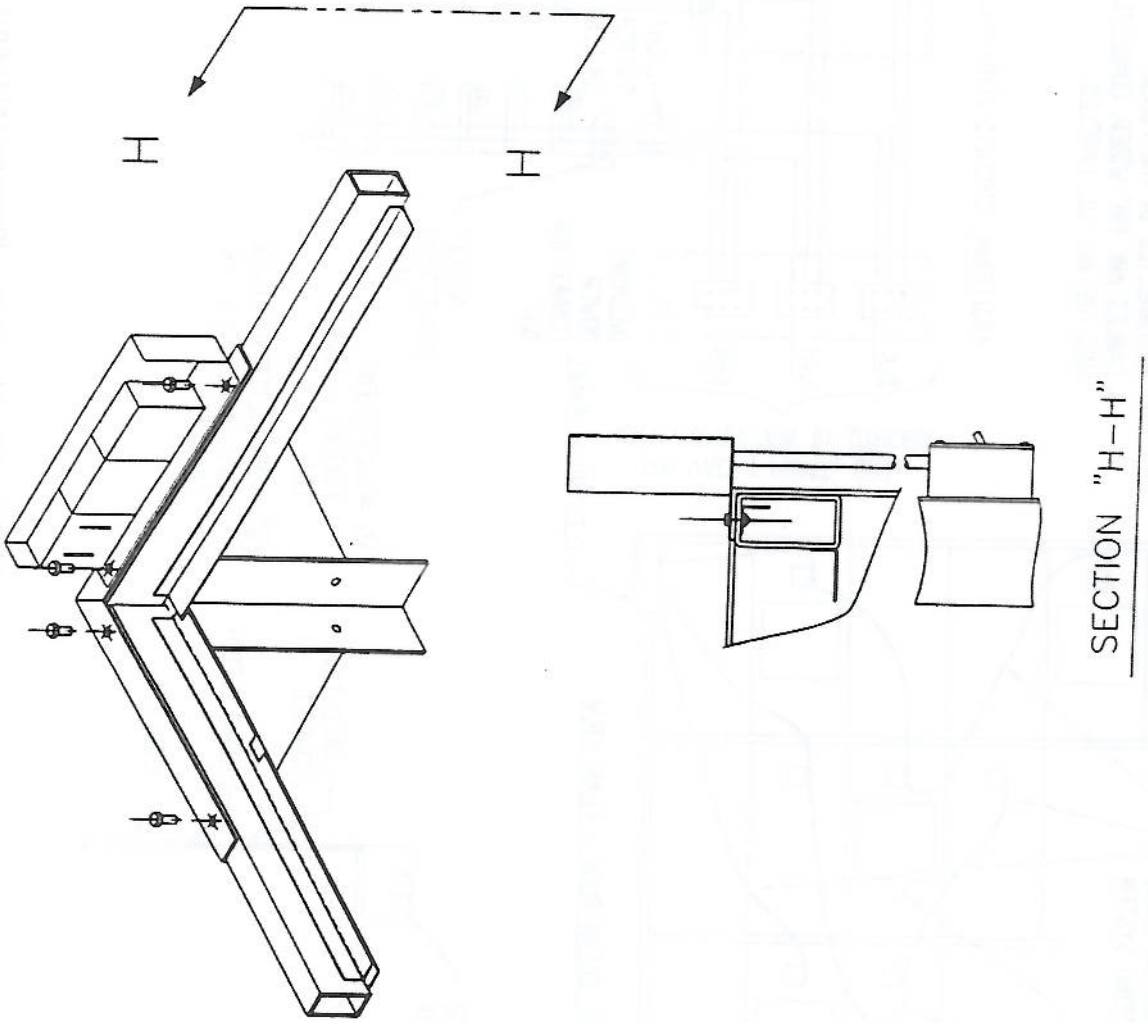
CLEAN ROOM - SOFT WALL
CAP575 - THREADED ROD STRAIGHTENING SYSTEM

CDG	18 SEP 2008
575\	B

142124.2701

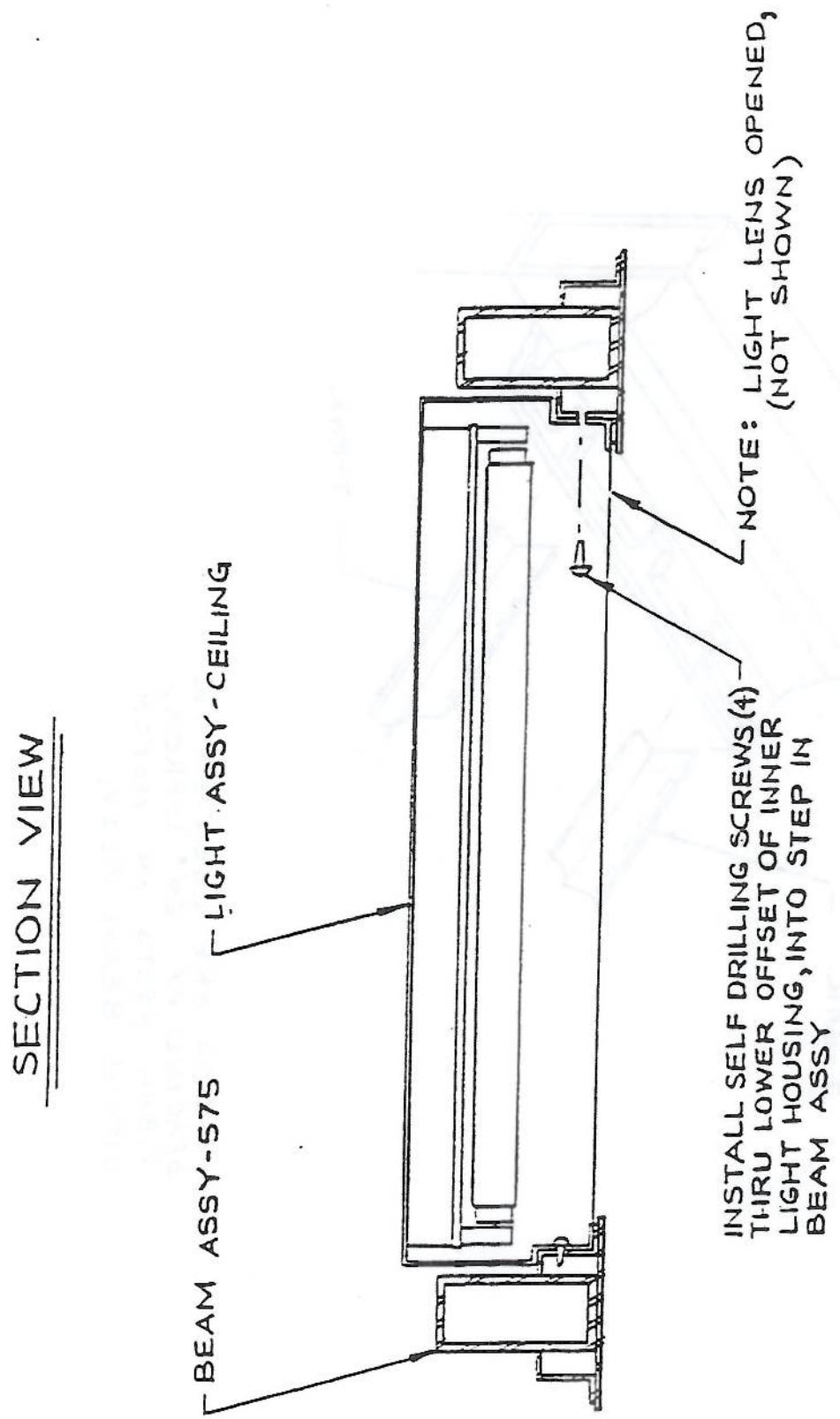
Clean Air Products' Series 575 Vertial Flow Cleanroom — Frame Assembly (Drawing F041501)

Clean Air Products' Series 575 Vertial Flow Cleanroom – Frame Assembly Details (Drawing F041504)



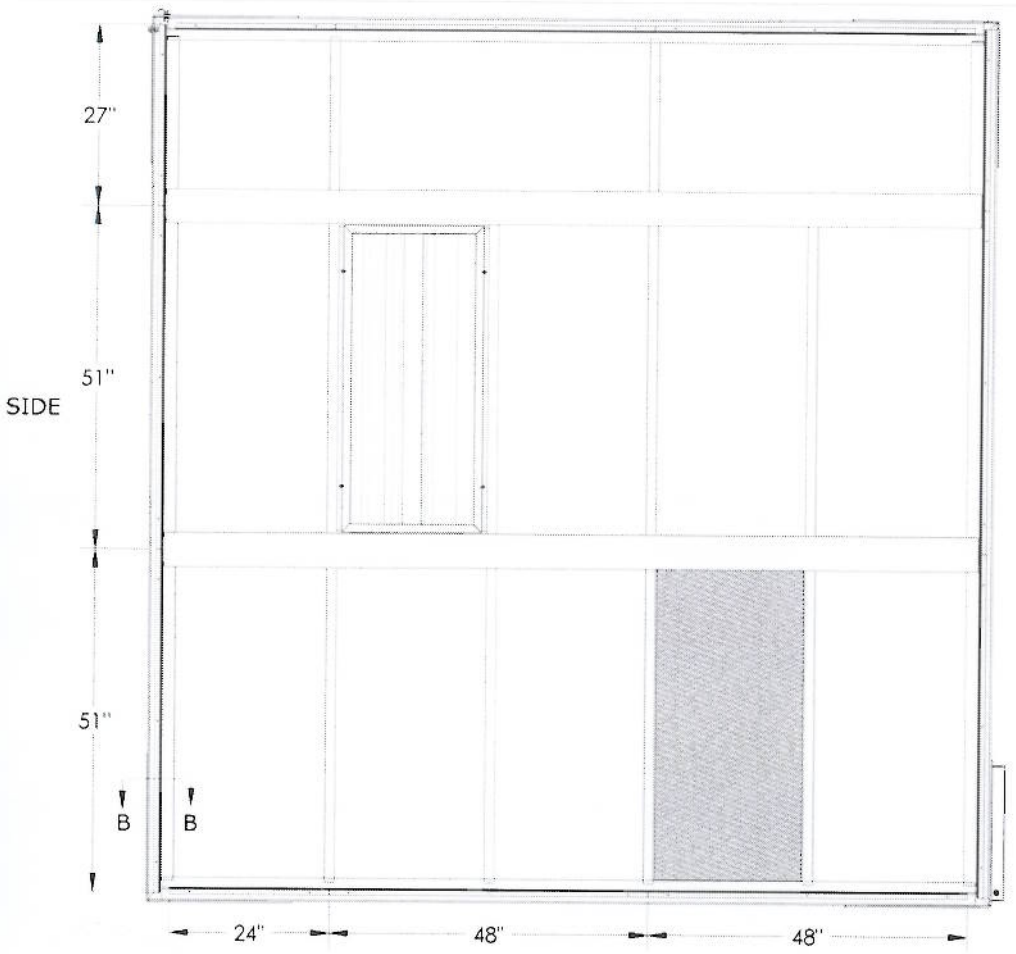
Clean Air Products' Series 575 Softwall Frame Details (Drawing F041503)

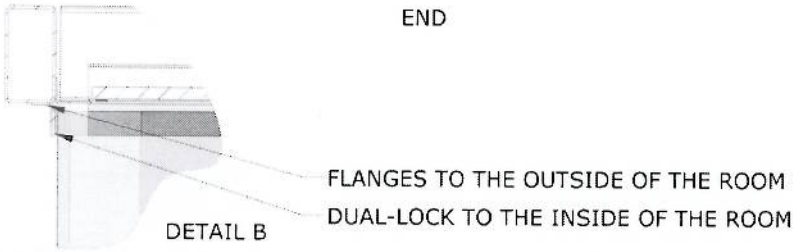
Clean Air Products' Series 575 and 577 Pre-Wire Elec. Option (Drawing 341438.0112C)



Clean Air Products' Series 575 Installation Instructions – Ceiling Light, Restraint (Drawing A41860.9001)

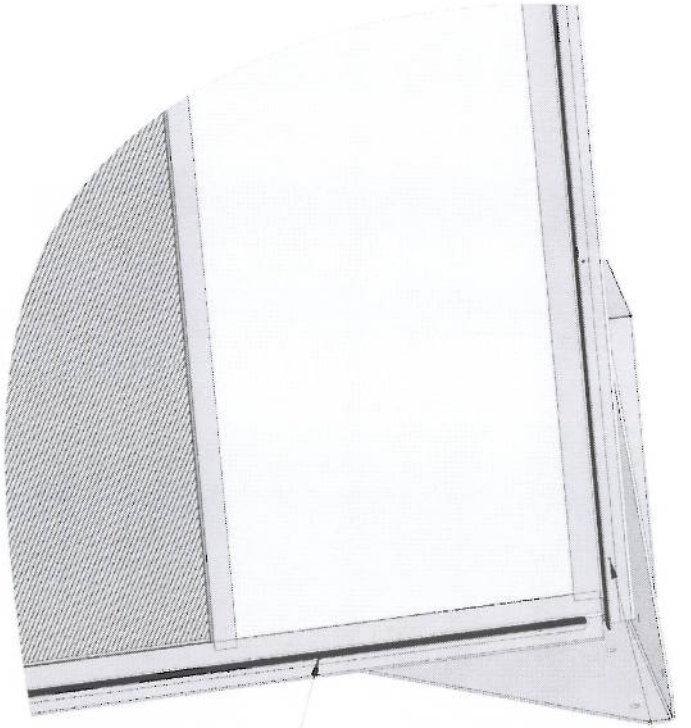
Clean Air Products' Series 575 T-Bar Positioning (Drawing A41856.9001)





INSTALLATION:
1. THE ENDS RUN PARALLEL WITH THE CENTER BEAMS.
2. INSTALL 48" AND 24" CURTAIN ANGLES ON ENDS.
3. INSTALL 51" AND 27" CURTAIN ANGLES ON SIDES.
4. MOUNT ANGLES WITH DUAL LOCK TO INSIDE OF ROOM.
5. SCREW ANGLES TO FRAME WITH #10 SELF DRILLING SCREWS.

INSIDE CORNER DETAIL
(LEG DETAILS REMOVED)



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(800) 423-9728

CLEAN ROOM - MODULAR
CAP575 - 40 MIL CURTAIN ASSEMBLY

CDG	11 AUG 2008	
575\	A	
	141856.9003	-

Clean Air Products' Series 575 Softwall Frame Assembly Details (Drawing F041502)

Series P20135 Cleanroom Curtains and Strip Doors

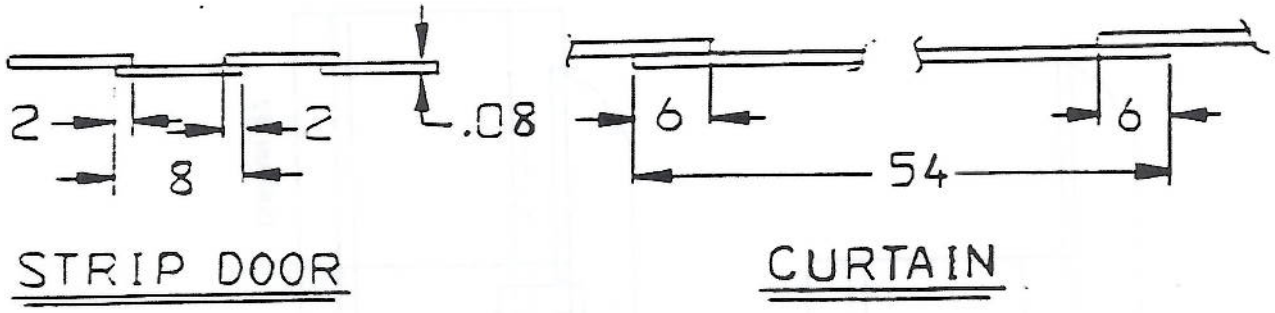
Cleanroom curtains can be used as full-length curtains to enclose an area, or as a face shield between a process and the operator to minimize the potential of contamination.

The standard materials are:

- Clear 20 mil double-polished vinyl – 54 inches overall width
- Clear conductive grid – 12 mil clear double-polished vinyl with a carbon diamond-shaped grid bonded to one side. These curtains are constructed to allow for grounding so the carbon grid can dissipate the surface charge to ground.
- Yellow 13 mil used for ultraviolet light filtration. This can also be used with photo resist applications. The standard is 64 inches overall.
- The curtains come with a loop sewn on the top and bottom as standard. The top loop stitching stops 7 inches back from the edge so the curtains can overlap between sections.
- An aluminum channel is provided and mounts into the top loop. This channel screws to ceiling or tee bars. A chain weight installed into the bottom loop.

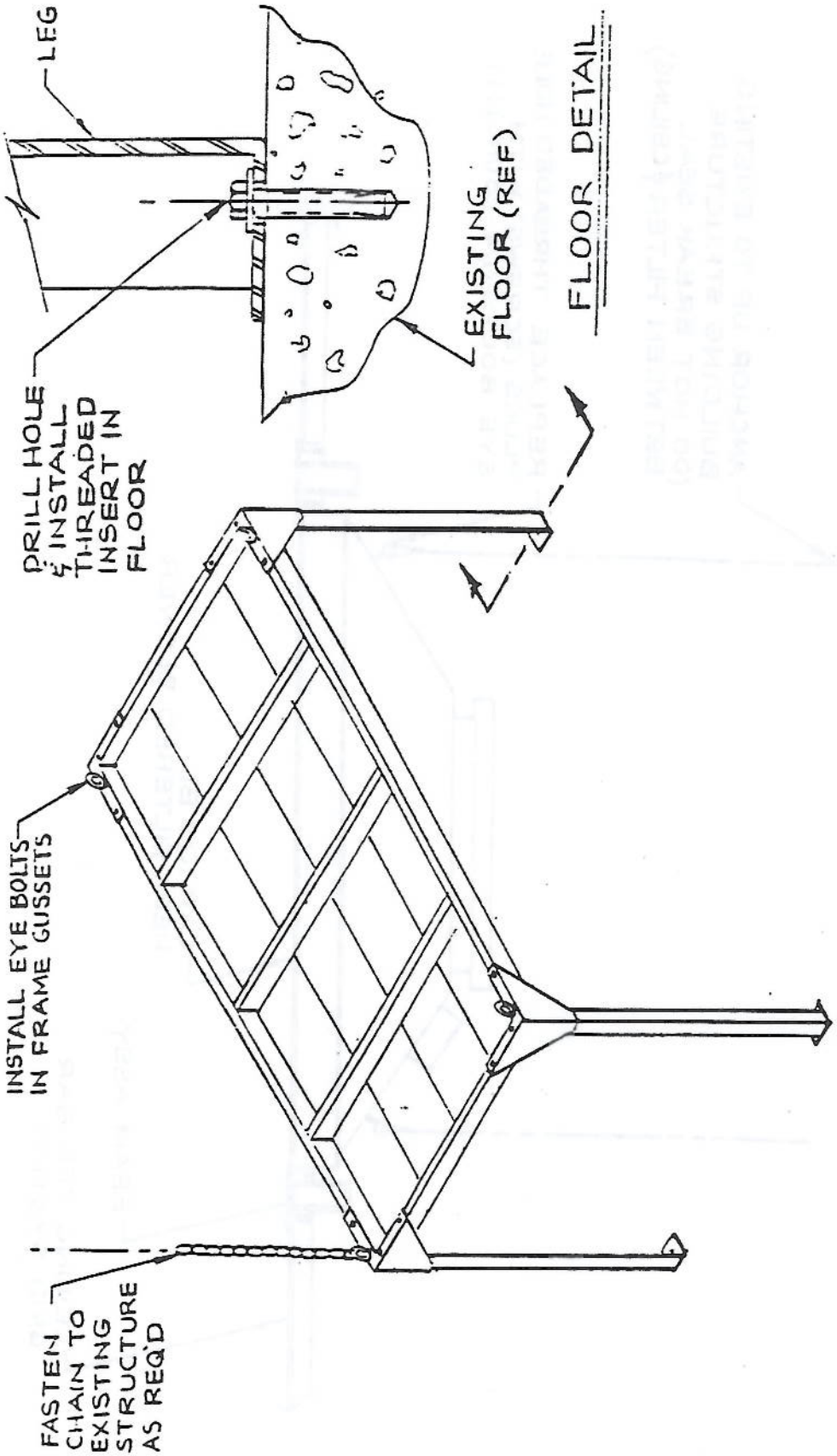
Strip Doors

Heavy-gage clear-vinyl strips approximately 1/8 inch thick are available for high-traffic areas. The strips are 8 inches wide and come in 2-inch (25%) overlap. The curtains are shipped assembled, with mounting angle on top.

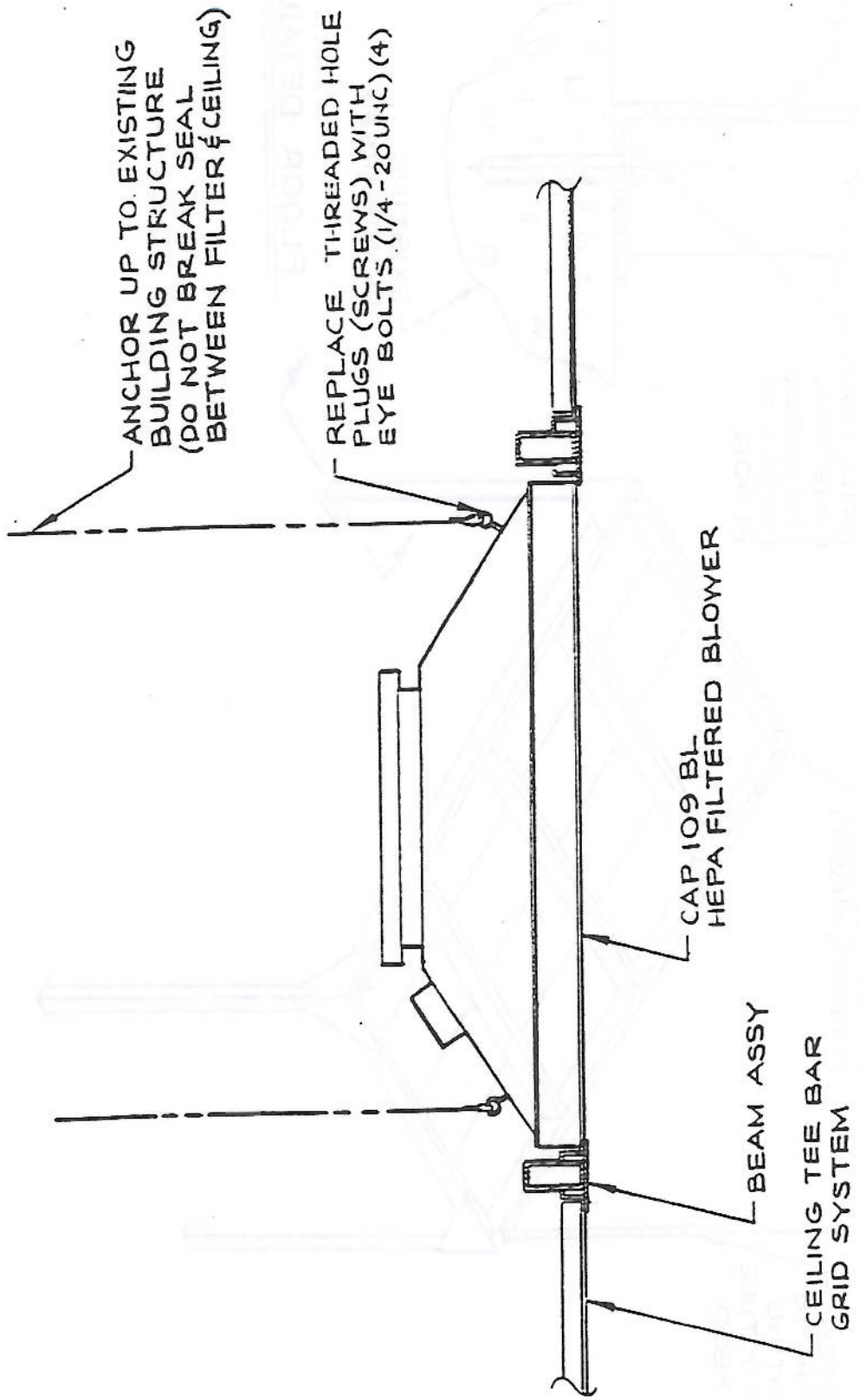


Form 560

tel: 763.425.9122 800.423.9728
www.cleanairproducts.com



Clean Air Products' Series 575 Softwall Cleanroom – Floor Anchor/Deiling Restraint (Drawing A41856.9003)



Clean Air Products' Series 109BL Installation Instructions – Suspend, Ceiling Filter Module (Drawing A41843.9008)

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Cleanroom Solutions Made Easy!

Laminar Flow Clean Benches

Modular Cleanrooms – Vertical Flow HARDWALL

Dust Containment Cabinets

Fume Hoods

We Build Hassle-Free

Modular Cleanrooms – Vertical Flow SOFTWALL

Wet Process Stations

Coat Racks

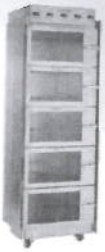
Formica Tables

Stainless Steel Tables

Cleanroom Solutions

Filters

Gowning Benches



Desiccator Cabinets

Storage Cabinets

Air Showers

Pass Thru Air Locks

Wall & Ceiling Modules

Clean AIR PRODUCTS

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